

Title (en)
THERMAL INSULATION PANEL

Title (de)
WÄRMEDÄMMPLATTE

Title (fr)
PANNEAU ISOLANT THERMIQUE

Publication
EP 2859158 B1 20160427 (FR)

Application
EP 13728722 A 20130611

Priority
• FR 1255497 A 20120612
• EP 2013062054 W 20130611

Abstract (en)
[origin: WO2013186225A1] The invention relates to a thermal insulation device comprising at least one panel (100) provided with two walls (110, 120) separated by a peripheral main spacer (102) in order to define a gas-tight chamber (104) containing a partial vacuum, and at least two flexible films (150, 160) locally attached to secondary spacers (140) at intermediate points between the two walls (110, 120) and defining tight secondary compartments (158) between each other. As a result of applying successive potentials of selected polarity between the walls (110, 120) and the flexible films (150, 160), the flexible films (150, 160) are moved between a first thermal insulation position wherein the films (150, 160) are separated from each other and a second position wherein the films (150, 160) are in mutual contact at least on a substantial part of the surface thereof.

IPC 8 full level
E04B 1/76 (2006.01); **E04B 1/74** (2006.01); **E04B 1/80** (2006.01); **E04C 2/34** (2006.01); **F28F 13/00** (2006.01)

CPC (source: EP US)
E04B 1/74 (2013.01 - EP US); **E04B 1/76** (2013.01 - US); **E04B 1/7612** (2013.01 - US); **E04B 1/80** (2013.01 - EP US); **E04C 2/3405** (2013.01 - US); **E04C 2/44** (2013.01 - US); **E04B 1/803** (2013.01 - EP US); **E04B 1/806** (2013.01 - EP US); **E04C 2002/3455** (2013.01 - EP US); **E04C 2002/3466** (2013.01 - EP US); **F28F 2013/008** (2013.01 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
FR 2991698 A1 20131213; **FR 2991698 B1 20140704**; EP 2859158 A1 20150415; EP 2859158 B1 20160427; JP 2015528863 A 20151001; JP 6009663 B2 20161019; RU 2585772 C1 20160610; US 2015152635 A1 20150604; US 9481996 B2 20161101; WO 2013186225 A1 20131219

DOCDB simple family (application)
FR 1255497 A 20120612; EP 13728722 A 20130611; EP 2013062054 W 20130611; JP 2015516593 A 20130611; RU 2014151760 A 20130611; US 201314407437 A 20130611